

Application No. 10/536,971
AMENDMENT dated February 2, 2010
In Reply to Office Action of November 2, 2009

Listing of Claims:

1. (Currently Amended) A conduit for conducting gasified liquid, said conduit having a flow restrictor arranged in in-line relation therewith, and said restrictor comprising an at least one aperture adapted to pass said gasified liquid flowing through said conduit and across a pressure drop from a higher-pressure upstream side of said aperture to a lower-pressure downstream side of said aperture, and wherein said aperture is operable to moderate ~~the~~ a rate of change in pressure over a transitional pressure drop to mitigate ~~the~~ a formation of localized pressures below a critical pressure at which off-gassing from the carbonated liquid results in substantial foam formation, and said conduit is a pliable tube, which is compressible *in situ* to form an aperture by the application of external force.
2. (Original) The conduit according to Claim 1, comprising a plurality of apertures arranged in series along the path of the gasified liquid flow, and wherein sequential downstream pressure drops are produced between successive pairs of apertures to respective intermediate pressures that are lower than the pressure upstream of the first aperture in said series and higher than the pressure downstream of the last aperture in said series.
3. (Original) The conduit according to Claim 2, wherein at least one of said apertures is venturi-shaped.

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4. (Original) The conduit according to Claim 2, wherein said apertures comprise at least two static apertures.
5. (Original) The conduit according to Claim 1, wherein the aperture is shaped as a venturi.
6. (Currently Amended) The conduit according to Claim 1, wherein the gasified liquid is selected from one of the group consisting of: a carbonated liquid; ~~or~~, or a nitrogenated liquid; or a combination carbonated and nitrogenated liquid.
7. (Original) The conduit according to Claim 1, comprising a liquid dispense conduit.
8. (Currently Amended) The conduit according to ~~Claims~~ Claim 3 or 5, wherein said liquid is a beverage.
9. (Original) The conduit according to Claim 8, wherein said beverage is beer.
10. (Currently Amended) The conduit according to ~~Claims~~ Claim 3 or 5, wherein said venturi has a back angle of less than 24 degrees.

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11. (Original) The conduit according to Claim 10, wherein said back angle is about 20 degrees or less.

12. (Original) The conduit according to Claim 11, wherein said back angle is about 15 degrees or less.

13. (Original) The conduit according to Claim 3 or 5 which comprises a formed tube having an integral stricture arranged there along to form the venturi.

14. (Canceled)

15. (Original) The conduit according to Claim 14, wherein said application of external force is a clamping action.

16. (Original) The conduit according to Claim 15, wherein said clamping action applies external force along a tube contacting face of a cam or wedge shaped body, to produce a correspondingly shaped aperture within said tube.

17. (Original) The conduit according to Claim 1, in which inlet end and the outlet ends thereof are substantially the same internal diameter.

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18. (Original) The conduit according to Claim 17 wherein the inlet end is adapted to engage a keg valve.

19. (Original) The conduit according to Claim 17 wherein the outlet end is a nozzle through which the beer is dispensed into a beverage container.

20. (Original) The conduit according to Claim 1, comprising a flexible tubing that is compressed by a valve to constrict flow between substantially free flowing dispense and shutoff conditions.

21. (Currently Amended) The combination of a pre-formed tubular cartridge according to Claim 13 and a tap adapter for use in dispensing an alcohol beverage from a keg having a self-contained bag filled with an alcohol beverage, the keg having a neck and a valve assembly mounted to the neck of the keg where the valve assembly has a first valve through which beverage is dispensed from the keg and one of the keg and valve assembly has a second valve through which pressurized air is ~~feed~~ fed into the keg against an outside wall of the bag; the tap adapter comprising: a hollow arm adapted for releasably mounting in sealed relation with the valve assembly in fluid flow communication with the first valve, the hollow arm having a first end portion and a second end portion remote therefrom, the first end portion adapted to connect to the first valve to open the valve, and wherein the hollow arm supports said insertable tubular

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cartridge comprising a tube through which the beverage flows; a tap connected to the remote end of the hollow arm, the tap being operable between a closed position shutting off flow of beverage through the tube supported within said hollow arm and an open position permitting beverage to flow through tube within the hollow arm and out the tap; an air line passageway adapted to be connected to the second valve in sealed fluid flow communication therewith; ~~and~~, and a pump connected to the air line passageway for supplying pressurized air to the second valve.

22. (Original) The combination of Claim 21 wherein the air line passageway has a first end portion that connects to and opens the second valve, and has a second end portion connected to the pump.

23. (Original) The combination of Claim 21 wherein the air line passageway has an air valve adapted for connection to the pump.

24. (Original) The combination of Claim 21 wherein the valve assembly has a valve neck portion that extends beyond the neck portion of the keg, and the adapter has a base portion for supporting the hollow arm, the base portion comprising a neck adapted to releasably engage the valve neck and an annular flange portion adapted to abut the keg.

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25. (Original) The combination of Claim 24 wherein the base portion has spring locking members that engage the valve neck and are movable to release the adapter from the valve assembly.

26. (Original) The combination of Claim 21 wherein the tap has a cam member that rotates to close fluid flow through the hollow arm of the adapter.

27. (Original) The combination of Claim 21 wherein the hollow arm is separable to receive a tubular cartridge for interconnecting the tap with the first valve and through which the beverage is dispensed.

28. (Original) The combination of Claim 27 wherein the hollow arm is pivotally connected adjacent the first end portion to permit for separation of the hollow arm into an upper arm portion and a lower arm portion.

29. (Original) The combination of Claim 28 wherein the lower arm portion is adapted to receive the cartridge in snap fit relation therewith.

30. (Original) The combination of Claim 29 wherein the tap has a cam member that rotates to close fluid flow through the tubular arm by pinching the tube closed.

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31. (Original) The combination of Claim 21 wherein the pump is manually operated.
32. (Currently Amended) The combination of Claim 21 wherein said ~~venture~~ venturi has a back angle of less than 24 degrees.
33. (Currently Amended) A tap adapter for use in dispensing an alcohol beverage from a container, the tap adapter comprising:
- a dispensing tube providing a beverage flow passageway for dispensing beverage from the container, and the dispensing tube having a flexible wall portion; ~~and~~, and
 - a flow restricting actuator adapted to engage the flexible wall portion of the dispensing tube to partially collapse the flexible wall portion and restrict flow of beverage along the beverage flow passageway, said beverage flow passageway downstream of flexible wall portion increasing in diameter and only gradually.
34. (Original) The tap adapter of Claim 33 further comprising an arm member having an elongated guide channel and the dispensing tube extending along the elongated guide channel.
35. (Original) The tap adapter of Claim 34 wherein the arm member supports the flow restricting actuator.

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36. (Original) The tap adapter of Claim 35 wherein the flow restriction actuator has a protrusion adapted to be brought into engagement with the flexible wall portion.

37. (Original) The tap adapter of Claim 33 wherein the tap adapter has a tap with a cam member that rotates to pinch against the flexible wall portion to close the passageway.

38. (Original) The tap adapter of Claim 35 wherein the protrusion extends inwardly from an internal wall of the arm member.

39. (Original) The tap adapter of Claim 35 wherein the protrusion extends inwardly from and integrally of the elongated guide channel.

40. (Original) The tap adapter of Claim 39 wherein the protrusion extends inwardly from the guide channel by a variable amount to control partial collapsing of the passageway and thereby control flow of beverage through the passageway.

41. (Original) The tap adapter of Claim 33 wherein the flow restricting actuator variably engages the flexible wall portion to control the partial collapse of the flexible wall portion and thereby control flow restriction through the passageway.

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42. (Original) The tap adapter of Claim 33, further including a second flow restricting actuator adapted to engage the flexible wall portion.

43. (Original) The tap adapter of Claim 33 wherein the flow restricting actuator is adapted to engage the flexible wall portion at a first position of engagement restricting flow of beverage along the beverage flow passageway and at a second position of engagement closing the flow passageway.

44. (Currently Amended) A tap adapter for use in dispensing an alcohol beverage from a keg containing the alcohol beverage, the keg having a neck and a valve assembly mounted to the neck of the keg, the valve assembly having a first valve through which beverage is dispensed from the keg, the tap adapter comprising:

 a hollow arm adapted for releasably mounting in sealed relation with the valve assembly;

 a dispensing tube supported in the hollow arm, the dispensing tube having a passageway through which the beverage flows from the valve assembly, the passageway having a first end portion adapted for connection with the first valve for receiving the beverage, the passageway having a second end portion from which the beverage is dispensed, and the dispensing tube having a flexible wall portion intermediate of the first and second end portions;

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a flow restricting actuator adapted to engage the flexible wall portion of the dispensing tube to partially collapse the flexible wall portion and restrict flow of beverage through the passageway; ~~and~~, and

a tap connected to the hollow arm remotely of the valve assembly, the tap being operable between a closed position shutting off flow of beverage through the passageway and an open position permitting beverage to flow through the passageway and out the second end portion.

45. (Original) The tap adapter of Claim 44 wherein the tap forms an integral part of the hollow arm of the adapter.

46. (Original) The tap adapter of Claim 44 further comprising a base portion having spring locking members that engage the valve neck and are movable to release the adapter from the valve assembly.

47. (Original) The tap adapter of Claim 44 wherein the tap has a cam member that rotates to pinch against the flexible wall portion to close the passageway.

48. (Original) The tap adapter of Claim 44 wherein the hollow arm is separable into an upper arm portion and a lower arm portion movable between an open position for receiving the

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dispensing tube and a closed position for positively locating the dispensing tube in the hollow arm.

49. (Original) The tap adapter of Claim 48 wherein:

the lower arm portion has an entry port for receiving the first end portion of the passageway in sealing relation with the first valve, and the lower arm portion has a lower elongated guide channel for receiving the dispensing tube; and

the upper arm portion has an upper elongated guide channel that cooperates with the lower elongated guide channel to positively locate the dispensing tube in the hollow arm when the upper and lower arm are closed.

50. (Original) The tap adapter of Claim 49 wherein the flow restricting actuator comprises a protrusion in at least one of the lower and upper elongated guide channels that is adapted to collapse the passageway upon closure of the upper and lower arms.

51. (Original) The tap adapter of Claim 50 wherein the upper and lower guide channels each comprise channel walls and at least one of the channel walls carries said protrusion.

52. (Original) The tap adapter of Claim 48 wherein the lower and upper arm portions are pivotally connected adjacent the first end portion of the dispensing tube.

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53. (Original) The tap adapter of Claim 52 wherein the tap is supported from the upper arm portion.

54. (Original) The tap adapter of Claim 44 wherein the flow restricting actuator variably engages the flexible wall portion to control the partial collapse of the flexible wall portion and thereby control flow restriction through the passageway.

55. (Original) The tap adapter of Claim 44, further including a second flow restricting actuator adapted to engage the flexible wall portion.

56. (Original) The tap adapter of Claim 44 wherein the flow restricting actuator is adapted to engage the flexible wall portion at a first position of engagement restricting flow of beverage along the beverage flow passageway and at a second position of engagement closing the flow passageway.

57. (Currently Amended) The tap adapter of Claim 1 wherein said increase in diameter ~~in~~ is such that the interior wall of the dispensing tube downstream of said collapsed flexible wall portion has an angle of not more than 24 degrees to the longitudinal axis of the tube.